DOCUMENT RESUME

ED 068 618 UD 013 008

TITLE	Higher Horizons 100, Hartford, Connecticut. Model Programs, Compensatory Education Series.
INSTITUTION	American Institutes for Research in the Behavioral Sciences, Palo Alto, Calif.
SPONS AGENCY	National Center for Educational Communication (DHEW/OE), Washington, D.C.
REPORT NO	OE-72-81
PUB DATE	72
NOTE	28p.
AVAILABLE FROM	Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 ($0.25)
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Compensatory Education Programs; Counseling Services; Cultural Enrichment; Curriculum Development; Disadvantaged Youth; Individualized Instruction; Language Instruction; Program Evaluation; Reading Instruction; *Remedial Instruction; *Secondary School Students; Self Concept; Small Group Instruction; *Student Adjustment
IDENTIFIERS	*Connecticut

ABSTRACT

Each academic year since its inception in 1965, the Higher Horizons 100 (HH100) program has provided a remedial language and intensive counseling program to 100 disadvantaged ninth-grade students. The goal of the program is to improve the language skills, self-concept, and school adjustment of disadvantaged students having no serious emotional problems, of average intelligence, and with one to three years' reading retardation. Children are selected from eight feeder schools on the basis of these criteria. A team of six teachers and a guidance counselor run the program in a cluster of rooms in the Hartford Public High School. Since the students are specially selected, have their own unique curriculum, and are separated from the other ninth-grade students in the high school, the program has a school-within-a-school atmosphere. Upon successful completion of a year in the program, the HH100 students are transferred to the regular tenth-grade school program. The HH100 program is characterized by small classes, individualized instruction, intensive counseling services, and remedial language instruction integrated within a special ninth-grade curriculum. As an adjunct to the instructional program, a program of cultural activities, civic trips, and guest speakers is provided. (Author/JM)

This series was prepared by the American Institutes for Research in the Behavioral Sciences under contract with the Office of Education/Office of Program Planning and Evaluation. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinion do not, therefore, necessarily represent official Office of Education position or policy.

DISCRIMINATION PROHIBITED—*Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Therefore, the program described herein, like every program or activity receiving Federal financial assistance, must be operated in compliance with this law.*

ED 068618

Model Programs

DHEW Publication No. (OE) 72-81

Compensatory Education

Higher Horizons 100
Hartford, Connecticut

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

UD 013008

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Elliot L. Richardson, *Secretary*
Office of Education
S. P. Marland, Jr., *Commissioner of Education*

Superintendent of Documents Catalog No. HE5.237:37082

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1972

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 - Price 25 cents

Stock Number 1780-0931

Foreword

This is the third in NCEC's *Model Programs* series, whose purpose is to inform educators about successful ongoing programs and to provide them with sufficient information to decide if locally modified replications would be desirable. Included in this series are descriptions of 15 "successful" compensatory education programs for disadvantaged children currently operating in the Nation's schools.

Under contract to the Office of Education, the American Institutes for Research in the Behavioral Sciences, Palo Alto, Calif., identified—through a literature search and nominations by local, State, and national educational agencies—over 400 candidate programs in this area. Of this number only 17 met the stringent criteria for success established by AIR in conjunction with OE. It should be noted that most of the programs rejected during the study were not rejected because they were demonstrated failures but rather because their evaluation methodology was so inadequate that a conclusion about success or failure could not be drawn.

Short descriptions of each program in the series have been prepared, covering such topics as context and objectives, personnel, methodology, inservice training, parent involvement, materials and equipment, facilities, schedule, evaluation data, budget, and sources for further information.

Six of the programs in this series were formerly written up in the *It Works* series published by OE in 1969. These six continue to operate successfully, as evidenced by the evaluation data; and since the *It Works* booklets are out of print, the program descriptions have been updated and included in this *Model Programs* series.

Two other programs—Programed Tutorial Reading Project, Indianapolis, Indiana, and Summer Junior High Schools, New York, New York—identified as exemplary compensatory education programs were included in the former *Model Programs* series on reading. Since these program descriptions are still available from the U.S. Government Printing Office, they were not republished for this series.

Two previous *Model Programs* series have been issued—on reading (10 programs) and childhood education (33 programs). Booklets on these programs are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for 15 to 25 cents each.

Higher Horizons 100
Hartford, Connecticut

Overview

Each academic year since its inception in 1965, the Higher Horizons 100 (HH 100) program has provided a remedial language and intensive counseling program to 100 disadvantaged ninth-grade students. The goal of the program is to improve the language skills, self-concept, and school adjustment of disadvantaged students with no serious emotional problems, of average intelligence, and with 1 to 3 years' reading retardation. Children are selected from eight feeder schools on the basis of these criteria.

A team of six teachers and a guidance counselor run the program in a cluster of rooms in the Hartford Public High School. Since the students are specially selected, have their own unique curriculum, and are separated from the other ninth-grade students in the high school, the program has a school-within-a-school atmosphere. Upon successful completion of a year in the program, the HH 100 students are transferred to the regular 10th-grade school program.

The HH 100 program is characterized by small classes, individualized instruction, intensive counseling services, and remedial language instruction integrated within a special ninth-grade curriculum. As an adjunct to the instructional program, a program of cultural activities, civic trips, and guest speakers is provided. As a school-within-a-school, HH 100 has the scheduling and curriculum flexibility required to individualize

instruction and yet allow the entire student body and instructional team to participate as a group in various activities.

Program effectiveness is determined annually via a basic pretest-posttest evaluation design. On the basis of standardized achievement test change scores, the HH 100 program has consistently improved the reading and writing skills of its students. These improvements were generally found to be statistically as well as educationally significant. Results in other areas of scholastic achievement have been somewhat less impressive. Attempts to assess the effects of the program in the noncognitive domain have been plagued with data collection and analysis problems.

Description

2

Context and Objectives

Welfare records and demographic studies of Hartford's City Planning Department indicate that more families move out of the city limits than enter, and that immigrating families are larger and poorer than emigrating families. Typically, too, new school enrollees bring more educational problems with them. They have worse school records, more serious language disabilities, and cause more classroom problems than emigrating students.

The Higher Horizons 100 (HH 100) program was designed to meet the special needs of these students, needs which centered on language deficiences and school adjustment problems. The program began in 1965 as a self-contained ninth-grade demonstration center on the campus of Hartford Public High School. The high school, the largest of Hartford's three high schools, enrolled over 3,000 students in 1969. While black and Puerto Rican students constituted the largest percentage of youngsters from disad-

vantaged homes, a large portion of the white enrollment was also living in extreme poverty.

Nearly 60 percent of the Hartford Public High School student body live in neighborhoods characterized by extensive public housing projects and steadily deteriorating, crowded living conditions. Nearly half of the children come from families receiving public assistance and 70 percent qualify for State and city financial aid. A large segment of the parents who are employed have few marketable skills, with many holding unskilled and semiskilled jobs.

The high school enrollment is drawn from eight feeder schools, the same schools from which HH 100 youngsters are selected. To be chosen for the program, the student has to be recommended by his school counselor as a ninth grader of average intelligence with 1 to 3 years' retardation in reading and absence of serious emotional or adjustment problems. Following clearance by the HH 100 staff, nominees have to express ther own willingness to participate in the program and obtain their parents' consent.

Funded under the Connecticut State Act for Disadvantaged Children since fall of 1965, the HH 100 program provides participants with language remediation in special ninth-grade classes for 1 year, after which students enter regular 10th-grade classes at Hartford Public High School. Guidance services, cultural activities, and modifications in curriculum materials and instructional techniques are cooperatively planned by the HH 100 team to increase the student's self-esteem in regard to his academic achievements. Since its inception, HH 100 has attempted to:

- Provide an atmosphere for experimentation, change, and development so that the particular learning problems of approximately 100 selected disadvantaged students could be successfully met.

- Assist the students in adjusting to regular high school patterns.
- Provide remediation for specific learning deficiencies, particularly in the areas of reading and speech.
- Expand the experiential backgrounds of the selected students beyond the levels which are currently attainable in their out-of-school environment.
- Develop in the students an improved self-concept in order to promote higher educational, vocational, and life goals.

Program effectiveness has been validated in terms of improvement in reading achievement, writing skills, general scholastic achievement, and self-concept.

4 Personnel

With the exception of the project assistant, all program staff devote full time to the program. The primary functions of the program's staff are as follows:

Program coordinator. The program coordinator, in addition to serving as the HH 100 English teacher, exercises general supervision over the program, conducts staff meetings, prepares program reports and budgets, and assists in recruitment of HH 100 teachers.

Teachers (4 subject teachers, 2 language specialists). Teachers are responsible for providing ninth-grade instruction to their students in their particular subject specialties —English, mathematics, science, speech, reading (remedial), and regional studies (geography, civics, social studies). Teachers are selected by the program coordinator and the principal on the basis of their interest in the HH 100 philosophy and methodology.

Guidance counselor. The guidance counselor is responsible for selecting and testing HH 100 students, coordinating with feeder-school counselors, conducting HH 100 orientation, planning each student's course of study, grouping classes, providing individual and group guidance, visiting homes of students, arranging field trips and speakers, and disseminating program information to the community. The guidance counselor also works closely with the teachers to meet the specific needs of individual students.

Project assistant (three-fourths time). The project assistant, in addition to performing secretarial and record-keeping duties for the project, scores tests and tabulates data; orders supplies and equipment; assists the counselor in selection, testing, scheduling, and followup of students; and occasionally assists students with homework or study assignments.

Methodology **5**

The major features of the HH 100 program are: (1) language remediation, (2) individualized instruction, (3) team planning, (4) intensive counseling, and (5) cultural enrichment. Each of these features is described as follows:

Provision for language remediation within each subject area.—The development and strengthening of language skills is regarded as a team effort and stressed in each class, regardless of content area. The student not only receives language arts instruction every day from his English teacher and his speech (or reading) teacher, but also from his math, science, and regional studies teachers who integrate instruction in reading, writing, and vocabulary skills into their daily content-oriented lessons. Similarly, reading, speech, and English teachers occasionally integrate content from the other subject areas into students' oral and written exercises.

Individualized instruction.—Operating as a school-within-a-school with an enrollment of only 100 ninth graders, the program provides students with a semicloistered environ-

ment in which their learning problems receive much more attention than is possible in the typically overcrowded classroom. Classes are small, with about 25 students per class in each of the four content areas and 12 to 15 students per class during speech and reading sessions. Homogeneous grouping, used for math and English classes, permit additional emphasis on each student's specific language disabilities.

A special study hall is held during the last period of the day, 3 days a week. The HH 100 teaching staff is available during these study periods to give individualized assistance to students having difficulty in particular subjects. Teachers are also available after school or during preparation periods for additional tutoring or assistance. As much as possible, students are dealt with on an individual basis, with the teacher occupying a role best described as teacher-counselor. Close relationships are formed as teachers become "responsive helpers" in motivating students to adjust to the demands of school.

6

Team planning.—In a series of formal and informal gatherings, the HH 100 team is encouraged to react, respond, and adjust to the needs of their individual pupils. The entire team, including the guidance counselor, meets once a week during the last period of the day to discuss the progress of individual students. At these gatherings, teachers cooperatively plan their classroom activities and develop and coordinate techniques for dealing with each youngster's unique academic and social-adjustment problems. In addition to weekly planning meetings during the school year, the staff spends 4 weeks during the summer planning the year's instructional and cultural activities, training new HH 100 staff, studying profiles of incoming students, and meeting the students and their parents through home visits.

Intensive counseling.—Home visitations made during the summer by the counselor and teachers sensitize the HH 100 staff to problems that might occur during the aca-

demic year. Parents are encouraged to come to the school whenever the need arises to discuss their child's problems. The guidance counselor provides a great deal of personal attention, assistance, and encouragement to each student. Because he has less than half the regular student load, the HH 100 counselor can become thoroughly acquainted with each youngster. He helps them with personal troubles as well as school-related difficulties, and is frequently a go-between in working out a student's academic and adjustment problems with his teachers and parents. The counselor works intimately with each teacher and shares details relating to students' standardized test scores, prior school histories, home situations, and personal problems. He thereby assists the teachers in working more effectively with their students. The counselor and teachers also work as a team in changing individual schedules.

Cultural enrichment.—A program of cultural activities, civic trips, and speakers is provided and evaluated as part of the instructional program. The various activities are preplanned and coordinated during HH 100 staff meetings. The entire HH 100 staff and student body participate as a group in each event, and follow up their experiences with related class activities. Experiences provided over the years have included field trips of historical interest (e.g., Boston's Freedom Trail), civic interest (e.g., State capitol and Supreme Court buildings), and cultural interest (e.g., films such as *Othello* and *The Agony and the Ecstasy*). Speakers have included State government officials and city officials who dealt with topics of special interest to the HH 100 student body (e.g., drug abuse). In addition, guest lecturers spoke to the students about art, drama and other cultural topics. Depending upon available funds, supplementary current reading materials are purchased and some music (instrumental) instruction is offered.

Typical daily schedule.—The student's school day consists of homeroom period fol-

lowed by six 45-minute periods, which on any given day might follow this sequence:

Home Room	Conducted by first-period content-area teachers prior to initiating the day's instruction.
Period 1	English
Period 2	Mathematics
Period 3	Regional studies (geography, civics, social studies)
Period 4	Science
Period 5	Speech and reading (speech and remedial reading classes are taught on alternate days)
Period 6	Gym (twice a week) Supervised study (three times a week)

8

The sequence of the subjects shown opposite periods 1 through 5 rotate daily so that students attend a different class during period 1 each day. This system insures that at least once a week students are "fresh" in each content area. No constraints are placed on students to adhere to schedules which are not working out well. In instances where there are schedule problems, the teachers and guidance counselor cooperate with the student in devising a satisfactory course of study.

The daily program schedule can vary without disrupting the main high school schedule, and periods can be extended and classes combined whenever activities warrant.

Physical layout.—HH 100 uses six classrooms situated in a corner of the second floor of Hartford Public High School. With the exception of the science facilities, the classrooms are adjacent. The physical separation of HH 100 facilities from those of the main high school help set the school-within-a-school atmosphere. Equally important is

the exclusive nature of HH 100 class enrollments. In fact, the twice-weekly gym period is the only time the program students compete with their ninth-grade peers.

Equipment and materials.—All subject areas make extensive use of audiovisual aids, in addition to books and materials selected or prepared in accordance with students' interests and abilities. Due to space limitations only a sample of these devices and materials are presented here.

Books

English:
- *Modern English in Action*, by H. Christ (grammar skills)
- *English Grammar and Composition*, by Warriner (grammar skills)
- *Reading/Writing Workshop*, by McCart (grammar skills)
- *The Way It Is*, Xerox publication (literature)
- *The Odyssey of Homer*, adapted by H. Christ (literature)
- *The Pearl*, by Steinbeck (literature)
- *The Learning Tree*, by G. Parks (literature)
- *Lilies of the Field*, by W. Barrett (literature)
- *American Negro Poetry*, edited by Bontemps (literature)
- Individual dictionaries (one per student)

The classroom library contains 300 paperbacks which students can borrow for use at home.

Remedial Reading:
- *Word Attack Manual*, by Josephine Rudd (developmental)
- *Building Reader Power*, a programed course in reading techniques (developmental)

9

Basic Reading Skills, Scott Foresman (developmental)
High-interest stories and plays such as those in Saroyan's *My Kind of Wacky Wonderful World* (enjoyment)

Audiovisual Equipment and Materials

English and Speech:
- Tape Recorder
- Filmstrips
- Movies
- Television
- Phonograph records
- Overhead projector
- Opaque projector

10

Remedial Reading:
- Controlled Reader and filmstrips which accompany the device (Educational Development Laboratories)
- Language Master and materials which accompany the equipment (Bell and Howell)
- Flash-X (a tachistoscopic device manufactured by Educational Development Laboratories)

Science: *Introductory Physical Science* (Prentice-Hall), a textbook, materials, and equipment package which are used for the laboratory portion of the HH 100 science course.

Specific Examples of Methodology

The following examples point up the variety of instructional techniques used to individualize instruction and foster self-esteem.

English.—A unique aspect of individualized instruction in English classes is the use of contracts in which each student chooses the grade he wants to make on a unit of instruction and agrees to fulfill a contract which specifies the conditions for earning that grade. A, B, C, and D grades have the same minimum requirements—positive class participation and adequate preparation of daily assignments. The higher grades are associated with contracts for correspondingly higher test scores and completion of more assignments. For example, a student contracting for a B grade on the Odyssey and Mythology unit is required to meet the minimum participation and assigned work requirements for B, C, and D grades. In addition, he agrees to maintain his test average during the unit at 80 and to complete four assignments which he selects from two teacher-prepared lists, two from each list. (By contrast, a student contracting for an A grade has to maintain a test average of 90 and to complete five assignments.) The following activities are typical of those a student might choose:

- Suppose that you are going to make a film of the *Odyssey*. With modern actors and actresses, cast the story. Justify your choice of characters orally to the class. Use only major characters in the story.
- Find the names of planets that relate to mythology. Write the mythological story of each.
- Write a theme describing the slaughter of the suitors, explaining its justification and consequences.
- Write a story of a personal adventure—examples: an unpleasant occurrence, an accident, a boy's or girl's courage and quick wit, etc.

The student can raise a poor test average by completing bonus electives which are similar to contract assignments, but require a greater range of effort. Each bonus elective is worth from 5 to 20 points, depending upon the amount of work required of the student. Thus the contract system gives students many alternatives for earning desired grades in English. In addition, activities are of short duration and are based on attainable standards so that students can experience success.

Remedial reading.—The remedial reading teacher, like the rest of the HH 100 staff, uses diagnostic test results to pinpoint each student's specific language skills deficiencies and to start him where he can easily make gains. Early in the year, the teacher sets short-term, readily attainable goals for each student; later, he occasionally challenges students to work at or above their "frustration levels" to determine whether individual reading goals can be upgraded. The teacher looks for ways to let each student demonstrate his progress. The youngster's strengths become the source of praise which are recognized as warranted and sincere.

Other techniques the teacher used to reach each student are best illustrated in the context of classroom instruction. For example, during a lesson on reading rate and comprehension, special motivational and instructional techniques are used to promote improvement of attention, concentration, speed, vocabulary, thinking, and visual perception. The EDL Controlled Reader is used to present stories on filmstrips to the students. Before actually flashing the story, the teacher spends a great deal of time stimulating interest in the theme and preparing students for new words used in the story. Vocabulary words are introduced in the context of writing, decoding, and speaking exercises in which students use the words in an original sentence, syllabicate the words, and discuss the words in terms of people in the class, e.g., "Marvin is *renowned* for his neatness." Interclass competitions and individually kept records are additional motivational devices.

Science.—The student develops comprehension and reading skills by applying concepts from his science textbook and teacher-prepared materials to class and lab work. In addition, he is given the responsibility for selecting, directing, and completing his own work. Each student receives a list of assignments for the marking period from which he selects his assignments. Each completed assignment is worth one point, and the number of points the student earns in a marking period determines his grade. The system permits the teacher to provide individualized assistance while each youngster works at his own pace on assignments which interest him. During any given class period, some students would be doing a lab experiment, others a workbook activity, still others a research project.

Budget

HH 100 is financed under provisions of the Connecticut State Act for Disadvantaged Children. The HH 100 budget reproduced below is based on estimates for the 1970-71 year.

13

Salaries		
Teachers (6)		$ 66,375
Guidance counselor		14,080
Clerical (part-time)		4,590
Expenses		
Instructional supplies		1,200
Other operating expenses		500
Pupil transportation		1,000
Fringe benefits		6,380
	Total	$ 94,125

The 1969-70 per-pupil cost of the program is estimated to be $900 as compared to an $800 per-pupil cost for the regular high school program during the same year.

Evaluation

Since its inception in 1965, the Higher Horizons 100 program has attempted to improve the (1) reading achievement, (2) writing skills, (3) general scholastic achievement, and (4) self-concept of its students. Cognitive goals have been evaluated with the same basic pretest-posttest evaluation model throughout the years. Self-concept evaluation has taken a variety of paths, none of which has produced definitive results. The following section summarizes the results of all evaluations to date. The reader requiring more detailed information is referred to the Higher Horizons 100 evaluation reports listed at the end of this description.

Ability Test Results

The Lorge-Thorndike Intelligence Test (Level 4, Form A, 1954 edition) was regularly administered to Higher Horizons 100 students prior to the start of the academic year. The same test was administered at the end of every academic year except 1968-69, when a different level and form were used for posttesting and 1969-70 when posttests were not administered. Pretest-posttest difference scores were analyzed to determine if the program had any effect on the students' ability test scores.

The assumption underlying these analyses was that disadvantaged students with reading disabilities tend to be penalized when tested with group intelligence instruments

because of their language problems. It was therefore hypothesized that the intensive language instruction provided by the program would aid the students in overcoming their reading-related, test-performance difficulties and result in higher scores at the end of the program.

Throughout the years ability test results have been mixed, with small but statistically insignificant IQ gains reported in 1965-66 and 1967-68, small but statistically significant gains reported in 1966-67, and a statistically insignificant decrease in IQ reported for the 1968-69 academic year. Since ability test gains when present were small and in only one case statistically significant, it can be concluded that the Higher Horizons 100 program had little effect on its students' intelligence test performance.

Writing Skills Test Results

The SRA Writing Skills Test, Form A, 1961 edition, was administered to all Higher Horizons 100 students at the beginning and end of each academic year. This test was selected to measure the effect of the intensive language program on students' writing skills.

Table 1 summarizes the results reported to date. Higher Horizons 100 students have consistently demonstrated statistically significant gains in writing skills. In general, the improvement in writing skills has brought the program's students from a pretest percentile rank of approximately 22 to a posttest rank of approximately 50, the expected level for nondisadvantaged students. It can therefore be concluded that the gains in writing skills demonstrated by the Higher Horizon 100 students throughout the years have been educationally as well as statistically significant.

Table 1.—SRA writing skills pretest, posttest, and gain percentile scores (means)

Year	Sex	Number	Pre-	Number	Post-	Gain
1965–66	Boys	36	21.4	36	43.7	22.3*
	Girls	37	25.4	37	53.3	27.9*
1966–67	Boys	46	20.5	43	38.7	18.2*
	Girls	41	18.9	37	38.1	19.2*
1967–68	Boys	41	21.5	33	47.1	25.6*
	Girls	45	23.3	45	62.7	39.5*
1968–69	Boys	41	29.5	33	54.8	25.3*
	Girls	51	25.7	45	58.0	32.3*
1969–70	Boys	21	22.7	21	48.3	25.6*
	Girls	31	21.4	31	52.8	31.4*

*$p < .01$, two tailed t test

Reading Achievement Results

Since the main thrust of the Higher Horizons program was focused on reading skill improvement, it was predicted that the program's students would demonstrate statistically and educationally significant gains in reading achievement. Alternate forms of the 1943 edition of the Iowa Silent Reading Test were administered during the 1965-66 academic year, and alternate forms of the Revised New Edition of that test were administered the remaining academic years. In general the students were administered one form in the fall, and the alternate form was administered to them the following spring.

Analysis of pretest to posttest differences indicated that the students consistently demonstrated statistically significant gains in reading achievement. Table 2 illustrates the size of gains for the two academic years in which gains were reported in grade-equivalent

units. The time between testing was 9 months during 1965-66 and 8 months during the 1969-70 academic year. On the basis of the norms for the test, a grade-equivalent gain of .8 was expected during 1965-66 and .9 during the 1969-70 academic year. Table 2 indicates that the observed gains exceeded those expected values and consequently can be considered educationally significant.

Table 2.—Iowa Silent Reading grade-equivalent pretest, posttest, and gain scores (means)

Year	Sex	N	Pre	N	Post	Gain
1965–66	Boys	46	7.0	44	8.5	1.5*
	Girls	48	7.5	46	8.9	1.4*
1969–70	Boys	21	6.3	21	8.1	1.8*
	Girls	31	7.1	31	8.8	1.7*

*$p < .01$, two tailed t test

General Scholastic Achievement Results

The general scholastic achievement of the program's students was tested via a battery of Metropolitan Achievement Tests (1947 edition, Forms AMF and AMS) during the 1965-66 academic year. For the remaining years, academic achievement was measured by selected tests from the 1960 edition of the Metropolitan Achievement Tests, with the Word Knowledge and Reading Tests consistently administered through the years. In all cases one form of the test was administered at the beginning of the program and an alternate form at the end of the school year.

The most extensive battery of tests was administered during the first year of the program. The tests administered were the Word Knowledge (WK), Reading (Read), Spelling (Spell), Language (Lang), Language Study Skills (LSS), Arithmetic Computation (AC),

Arithmetic Problem Solving (APS), Social Studies Information (SSI), and Science (Sci) tests of the Metropolitan battery. Since 8 months elapsed between the two administrations, a grade-equivalent gain greater than .8 can be considered educationally significant.

The grade-equivalent gains made by the boys and girls in the program on each test administered are summarized in table 3. The boys made statistically and educationally significant gains on the Reading, Social Studies Information, and Science tests of the battery and statistically but not educationally significant gains on the Spelling, Language, and Arithmetic Problem Solving tests. On the other hand, the girls made statistically and educationally significant gains on only the Language Study Skills test with statistically but not educationally significant gains on the Word Knowledge, Reading, and Social Studies Information tests.

Table 3.—1965–66 grade-equivalent gains for boys and girls on the Metropolitan Achievement Tests (means)

Sex	Metropolitan Achievement Tests								
	WK	Read	Spell	Lang	LSS	AC	APS	SSI	Sci
Boys	.8	3.3*	.7*	.8*	.9	.4	.7*	.9*	1.0*
Girls	.8*	.8*	.6	.3	.9*	.5	.5	.7*	.6

*$p < .05$, two tailed t test

The only tests administered during the remaining years other than the Word Knowledge and Reading tests were the Arithmetic Computation and Arithmetic Problem Solving tests. Arithmetic test results have not been too encouraging, with the only statistically

and educationally significant gain made during 1968-69 by the girls on Arithmetic Problem Solving. The Word Knowledge and Reading test results, however, provide quite a different picture.

Mean Reading and Word Knowledge pretest, posttest, and difference scores in grade-equivalent units for each year of program operation are summarized in table 4. Reading gain scores throughout the years have been in all cases statistically, and in most cases educationally, significant (i.e., gains are greater than the expected .8). These results support those obtained with the Iowa Silent Reading Test. In terms of the World Knowledge test results, four of the eight gains reported are statistically significant, and three of those gains are also educationally significant.

Table 4.—Metropolitan Word Knowledge and Reading grade-equivalent pretest, posttest, and gain scores (means)

Year	Sex	Word Knowledge			Reading		
		Pre	Post	Gain	Pre	Post	Gain
1965–66	Boys	6.6	7.4	.8	6.6	9.9	3.3*
	Girls	6.9	7.7	.8*	6.6	7.4	.8*
1966–67	Boys	5.9	7.9	2.0*	5.6	7.7	2.1*
	Girls	6.2	6.7	.4	5.6	7.7	2.1*
1967–68	Boys	6.1	8.1	2.0*	5.9	6.7	.8*
	Girls	6.2	8.2	2.0*	5.7	7.0	1.3*
1968–69	Boys	6.7	7.2	.5	6.0	7.3	1.3*
	Girls	6.6	6.9	.3	5.8	6.9	1.1*

*$p < .05$, two tailed t test

In terms of scholastic achievement, the program has consistently reported significant gains on the Reading test, less consistent gains on the Word Knowledge test, and few educationally and statistically significant gains reported on other tests of the Metropolitan battery. It appears that Higher Horizons 100 has achieved its goals in the areas of reading skills (as measured by the Metropolitan Reading Test and the Iowa Silent Reading Test) and writing skills (as measured by the SRA Writing Skills Test) achievement. The program, however, has not demonstrated substantial success in other areas of scholastic achievement.

Self-Concept Results

Several attempts have been made to determine if the Higher Horizons 100 program has significantly improved student self-concept. A variety of evaluation models and instruments have been tried since the program's inception. Most attempts have been plagued by data collection or analysis problems. To date, little evidence has been reported to support the contention that the program has an effect on student self-concept.

Summary

The Higher Horizons 100 program has been evaluated every year since its inception in 1965. The results of these evaluations provide conclusive proof that the program is effective in improving the reading and writing skills of its students. Results in regard to other areas of scholastic achievement have been less impressive and consistent. In most areas of achievement tested, the students have made gains, but few of these gains are statistically and/or educationally significant. It appears that the intensive language instruction component of the program is successful, but only limited success is evident in other achievement areas.

Sources for Further Information

For additional information on the Higher Horizons 100 program, contact:

Mrs. Mamie White, Assistant Principal

Mr. John DeBenedetto, HH 100 Counselor and Coordinator
Hartford Public High School
55 Forest Street
Hartford, Connecticut 06105
(203) 278-1365, ext. 213, 208, respectively

For evaluation information, contact:

Mr. Robert J. Nearine
Coordinator of Evaluation
Hartford Public Schools
249 High Street
Hartford, Connecticut 06105
(203) 566-6534

References

Nearine, R. J. "Higher Horizons 100," *Focus on Action: An Evaluation, 1968-69.* Hartford, Conn.: Board of Education, 1969.

Nearine, R. J. "Higher Horizons 100." *Designs for Decision: An Evaluation Report, 1969-70.* Hartford, Conn.: Board of Education, 1970.

Intensive Language Instruction, Experiential Development, and Guidance Report: Evaluation, 1965-66. Hartford, Conn.: Board of Education, 1966.

Nearine, R. J. *Patterns for Progress: An Evaluation, 1967-68* (of the Higher Horizons 100 Program). Hartford, Conn.: Board of Education, 1958.

Nearine, R. J. *Where the Action Is, 1966-67: An Evaluation* (of the Higher Horizons 100 Program). Hartford, Conn.: Board of Education, 1967.

Project Proposal 64-1: State Act for Disadvantaged Children, 1970-71. Hartford, Conn.: Board of Education, October 1970.

☆U.S. GOVERNMENT PRINTING OFFICE: 1972 O- -454-986

MODEL PROGRAMS—Compensatory Education Series

Fifteen promising compensatory education programs for the disadvantaged are included in this series. Following is a list of the programs and their locations:

College Bound Program, New York, N.Y.

Diagnostic Reading Clinic, Cleveland, Ohio

The Fernald School Remediation of Learning Disorders Program, Los Angeles, Calif.

Higher Horizons 100, Hartford, Conn.

The Juan Morel Campos Bilingual Center, Chicago, Ill.

Learning To Learn Program, Jacksonville, Fla.

More Effective Schools Program, New York, N.Y.

Mother-Child Home Program, Freeport, N.Y.

Preschool Program, Fresno, Calif.

Project Conquest, East St. Louis, Ill.

Project Early Push, Buffalo, N.Y.

Project MARS, Leominster, Mass.

Project R-3, San Jose, Calif.

PS 115 Alpha One Reading Program, New York, N.Y.

Remedial Reading Laboratories, El Paso, Texas

Two programs also identified for this series were described in the *Model Programs—Reading* series: Programed Tutorial Reading Project, Indianapolis, Indiana, and Summer Junior High Schools, New York, New York. Since these program descriptions are still current and available from the Superintendent of Documents, U.S. Government Printing Office, they were not rewritten for this series.

UNITED STATES
GOVERNMENT PRINTING OFFICE
PUBLIC DOCUMENTS DEPARTMENT
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. GOVERNMENT PRINTING OFFICE

DHEW Publication No. (OE) 72-81